

AKT1/2/3 Rabbit mAb

Catalog No: #48888



Package Size: #48888-1 50ul #48888-2 100ul

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Description

Product Name	AKT1/2/3 Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal antibody
Clone No.	ST48-09
Purification	ProA affinity purified
Applications	WB, ICC/IF, IHC, IP, FC
Species Reactivity	Human;Mouse;Rat
Immunogen Description	recombinant protein
Conjugates	Unconjugated
Other Names	AKT antibody AKT1 antibody AKT1 kinase antibody AKT1m antibody AKT2 antibody AKT2 kinase antibody Akt3 antibody AKT3_HUMAN antibody CAKT antibody CWS6 antibody DKFZp434N0250 antibody HIHGHH antibody kinase Akt1 antibody MGC99656 antibody MPPH antibody Murine thymoma viral (v-akt) homolog 2 antibody PKB ALPHA antibody PKB antibody PKB beta antibody PKB gamma antibody PKB-GAMMA antibody PKB/Akt antibody PKBALPHA antibody PKBB antibody PKBBETA antibody PKBG antibody PKBGAMMA antibody PRKBA antibody PRKBB antibody PRKBG antibody Protein kinase Akt 2 antibody Protein kinase Akt-3 antibody Protein kinase B alpha antibody Protein kinase B antibody Protein kinase B beta antibody Protein kinase B gamma antibody Proto oncogene c Akt antibody RAC ALPHA antibody RAC alpha serine/threonine protein kinase antibody RAC antibody RAC BETA antibody RAC beta serine/threonine protein kinase antibody RAC PK alpha antibody RAC PK beta antibody rac protein kinase alpha antibody rac protein kinase beta antibody RAC-gamma antibody RAC-gamma serine/threonine-protein kinase antibody RAC-PK-gamma antibody RACALPHA antibody RACalpha serine/threonine kinase antibody RACBETA antibody RACgamma antibody RACgamma serine/threonine protein kinase antibody RACPKgamma antibody serine threonine protein kinase antibody STK-2 antibody STK2 antibody thymoma viral proto oncogene 1 antibody thymoma viral proto oncogene antibody V akt murine thymoma viral oncogene homolog 1 antibody V akt murine thymoma viral oncogene homolog 2 antibody V akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma) antibody V akt murine thymoma viral oncogene homolog 3 antibody vakt murine thymoma viral oncogene homolog 1 antibody vakt murine thymoma viral oncogene homolog 2 antibody vakt murine thymoma viral oncogene homolog 3 antibody
Accession No.	Swiss-Prot#:P31749
Calculated MW	56 kDa
Formulation	1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.
Storage	Store at -20°C

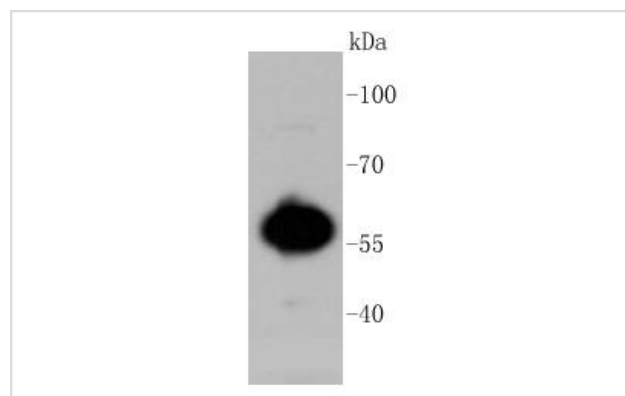
Application Details

WB: 1:1,000-5,000

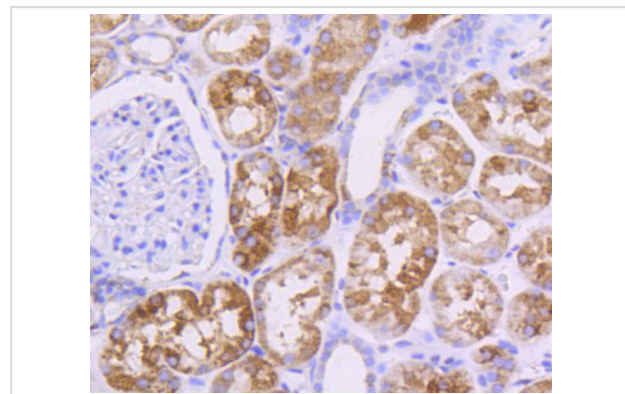
IHC: 1:50-1:200

ICC: 1:50-1:200

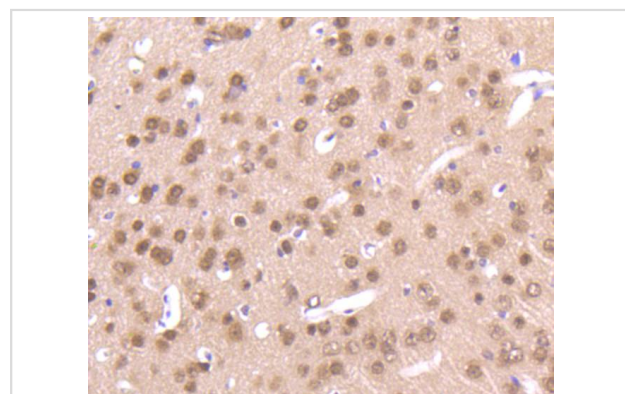
Images



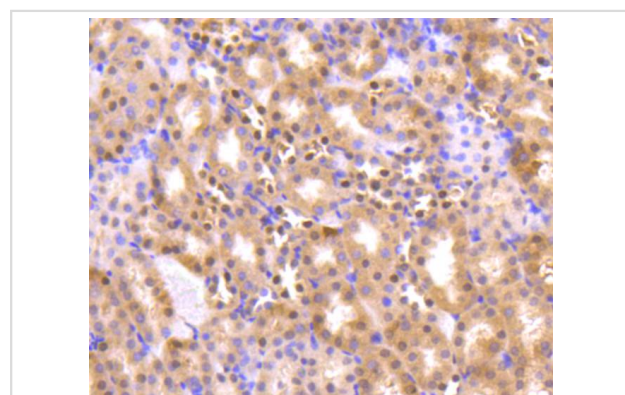
Western blot analysis of AKT1/2/3 on MCF-7 cell lysates using anti-AKT1/2/3 antibody at 1/1,000 dilution.



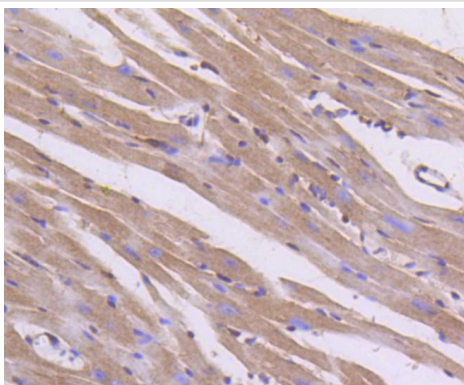
Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-AKT1/2/3 antibody. Counter stained with hematoxylin.



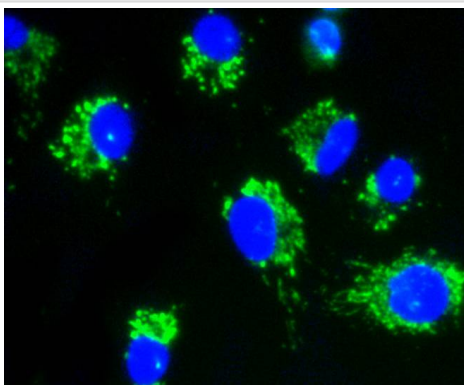
Immunohistochemical analysis of paraffin-embedded mouse brain tissue using anti-AKT1/2/3 antibody. Counter stained with hematoxylin.



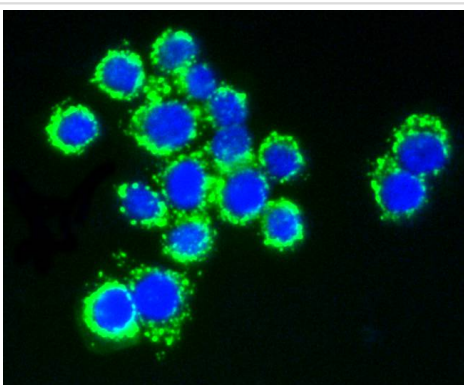
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue using anti-AKT1/2/3 antibody. Counter stained with hematoxylin.



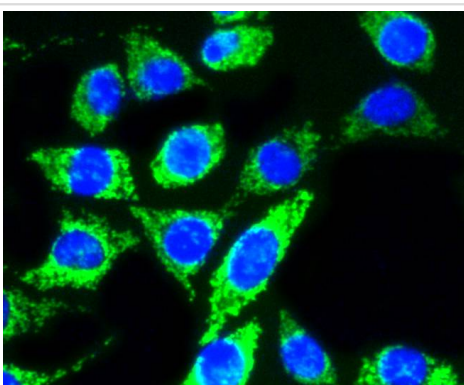
Immunohistochemical analysis of paraffin-embedded mouse heart tissue using anti-AKT1/2/3 antibody. Counter stained with hematoxylin.



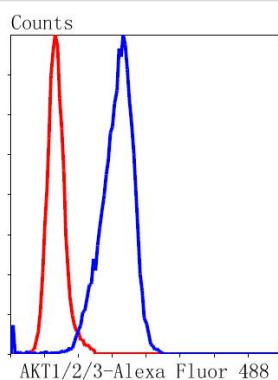
ICC staining AKT1/2/3 in A549 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



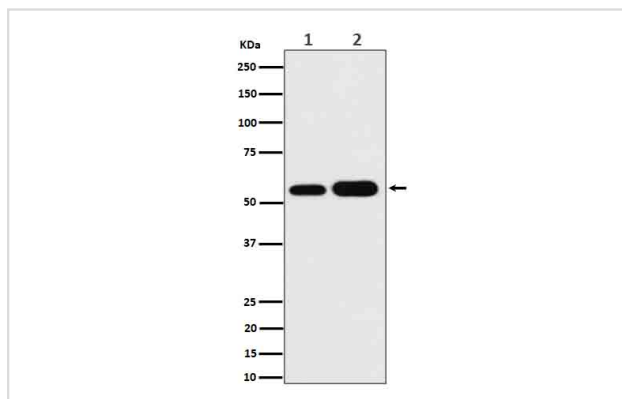
ICC staining AKT1/2/3 in CRC cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



ICC staining AKT1/2/3 in SH-SY-5Y cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



Flow cytometric analysis of A549 cells with AKT1/2/3 antibody at 1/50 dilution (blue) compared with an unlabelled control (cells without incubation with primary antibody; red). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.



Western blot analysis of AKT1 + AKT2 + AKT3 expression in (1) HeLa cell lysate; (2) A549 cell lysate.

Background

The serine/threonine kinase Akt family contains several members, including Akt1 (also designated PKB or RacPK), Akt2 (also designated PKB β or RacPK- β) and Akt 3 (also designated PKB γ ; or thymoma viral proto-oncogene 3), which exhibit sequence homology with the protein kinase A and C families and are encoded by the c-Akt proto-oncogene. All members of the Akt family have a pleckstrin homology domain. Akt1 and Akt2 are activated by PDGF stimulation. This activation is dependent on PDGFR- β tyrosine residues 740 and 751, which bind the subunit of the phosphatidylinositol 3-kinase (PI 3-kinase) complex. Activation of Akt1 by insulin or insulin-growth factor-1 (IGF-1) results in phosphorylation of both Thr 308 and Ser 473. Phosphorylation of both residues is important to generate a high level of Akt1 activity, and the phosphorylation of Thr 308 is not dependent on phosphorylation of Ser 473 in vivo. Thus, Akt proteins become phosphorylated and activated in insulin/IGF-1-stimulated cells by an upstream kinase(s). The activation of Akt1 and Akt2 is inhibited by the PI kinase inhibitor wortmannin, suggesting that the protein signals downstream of the PI kinases.

References

1. Buendia, I. et al. 2015. The Melatonin-N,N-Dibenzyl(N-methyl)amine Hybrid ITH91/IQM157 Affords Neuroprotection in an in Vitro Alzheimer's Model via Hemo-oxygenase-1 Induction. *ACS chemical neuroscience*. 6: 288-96.
2. Siendones, E. et al. 2014. Membrane-bound CYB5R3 is a common effector of nutritional and oxidative stress response through FOXO3a and Nrf2. *Antioxidants & redox signaling*. 21: 1708-25.

Published Papers

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[PMID:35370667](#)

et al., Effect of Fushengong Decoction on PTEN/PI3K/AKT/NF- κ B Pathway in Rats With Chronic Renal Failure via Dual-Dimension Network Pharmacology Strategy. In *Front Pharmacol* on 2022 Mar 15 by Hongyu Luo, Munan Wang, et al.. PMID: 35370667, , (2022)

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[PMID:37831732](#)

Note: This product is for in vitro research use only and is not intended for use in humans or animals.